

## **Project Operating Plan – Argonne National Laboratory Recovery Act Project**

### **Argonne National Laboratory Recovery Act Project**

#### **BACKGROUND**

<b>Recovery Act Project:</b>	Argonne National Laboratory (ANL) Recovery Act Project
<b>TAFS:</b>	89-09/10-0335
<b>Project Identification Code:</b>	2002000
<b>Recovery Act Bill Reference:</b>	PL 111-5 Title IV – Energy and Water Development, Non-Defense Environmental Cleanup (H.R. 1-25)
<b>Project Cost:</b>	\$79,000,000
<b>Budget Authority:</b>	05949, FE.01.16.00.0
<b>Program Office:</b>	Environmental Management (EM)
<b>Recovery Program Plan:</b>	EM - Non-Defense

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#### **LEADS**

<b>Implementation:</b>	N/A
<b>Breakthrough:</b>	N/A
<b>Laboratory:</b>	N/A

### **I. SUMMARY & OBJECTIVES**

This Recovery Act Project supports the mission of DOE and the Office of Environmental Management (EM) to reduce risks and costs by accelerating completion of new scope accepted from the Office of Science (SC): deactivation and decommissioning (D&D) of two excess contaminated facilities and completing waste and material cleanouts in a safe and cost effective manner. D&D of the two excess facilities, disposition of irradiated fuel specimens and other wastes and materials from the Alpha Gamma Hot Cell Facility (AGHCF), a Category 2 excess nuclear facility, and the disposition of transuranic (TRU) wastes from other excess nuclear facilities will be accelerated by approximately eight years, compared to EM's previous estimated ability to accept new scope in FY 2017.

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### Scope of Work

The Argonne EM Recovery Act Project is expected to be completed by the end of FY 2011. By the end of FY2010, we are expecting to complete decontamination and initiate demolition of Building 330, initiate and make significant progress in decontamination of Building 310; complete the first of two of the AGHCF irradiated fuel shipments, and initiate the shipment campaign of processed Remote-Handled transuranic (RH TRU) and Contact-Handled transuranic (CH TRU) waste. By the end of FY2011, we are expecting to complete decontamination and above-grade demolition of Building 310, and demolition of Building 330, in addition to processing and shipping an estimated 1800 linear inches of fuel specimen material, 220 drums of RH TRU waste and an estimated 150 drums of CH TRU wastes. The four subprojects planned for the duration of this Recovery Act investment include:

- Eliminating the excess Building 310 through decontamination and demolition of the 41,434 sq. ft. facility.
  - Building 310 is excess to Argonne's current and planned future needs. The current annual cost of \$468K to maintain the building includes maintenance, utilities and surveillance. Supporting costs, such as overhead costs to maintain access roads, signs, and required fire detection/protection services, are also required. As the facility ages and the structure deteriorates, the risk of environmental contamination increases. The above-grade demolition of this facility will make the site safer and eliminate the need for building maintenance, utilities and surveillance.
  - Elimination of this facility will support Argonne Site Modernization goals. Estimated cost avoidances of performing this work earlier than FY 2017 (earliest date that EM otherwise could have accepted this scope from SC) are \$8,026K based on 3% annual escalation of estimated project costs as well as 8 additional years of S&M (also escalated at 3% per year).
- Eliminating the excess Building 330 through decontamination and demolition of the 52,743 sq. ft. facility.
  - Building 330 remains in closure status and the continued deterioration of the facility is unavoidable. Plant and animal incursion has begun. The current annual cost of \$141K to maintain the building includes only minimal maintenance, utilities and surveillance. Costs of maintaining the integrity of the containment shell (including roof repairs) and containing the residual tritium contamination embedded in the foundations and underlying soils are expected to increase. As the facility ages and the structure deteriorates further, the risk of environmental contamination increases. The demolition will allow this area to be converted to green fields, thus making the site safer, eliminating the environmental liability in those areas, and releasing valuable real estate for future use.
  - Elimination of this facility will avoid future costs of repairs, and support Argonne Site Modernization goals. Estimated cost avoidances of performing this work earlier than FY 2017 (earliest date that EM otherwise could have accepted this scope from SC) are \$10,456K based on 3% annual escalation of estimated project costs as well as 8 additional years of S&M (also escalated at 3% per year).

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- The removal of wastes and nuclear material (in addition to and in coordination with those currently identified and planned for removal under the “next phase” transuranic disposition campaign) from the Alpha Gamma Hot Cell (AGHCF) in F wing of Building 212 ultimately will result in the building being declassified as a Category 2 Nuclear Facility and will substantially lower annual maintenance and safeguards and security costs. Current annual maintenance and surveillance cost for the Alpha Gamma Hot Cell (AGHCF) in F wing of Building 212 is \$6,875K. In addition, electricity and administrative costs are \$933K annually. Other large capital investments include upgrades to meet safety standards. As the facility ages and the structure deteriorates further, the exposure risk increases. Removal of these wastes and excess materials, in coordination with proposed continued TRU waste removals from AGHCF, will reduce potential worker risks and ultimately will result in the building being downgraded from a category 2 nuclear facility, with lowered annual maintenance and safeguard and security costs.
  - The scope includes retrieval from AGHCF, preparation of material, loading, and shipment off site of approximately 1800 linear inches of fuel specimen material.
- Removing the majority of the remote-handled and contact handled TRU waste from the Argonne site to jump start the full D&D of excess facilities transferring from Office of Science. At the completion of this waste disposition campaign, approximately 370 drums of TRU waste will be removed from the ANL site; approximately 220 30-gallon drums of RH TRU for disposal at the Waste Isolation Pilot Plant (WIPP) and approximately 150 55-gallon drums of CH TRU transferred to INL for consolidation and characterization prior to disposal at WIPP. Specific facilities affected and associated actions are:
  - Building 205 K Wing: gather data in support of AK Determination; acquire and install specialized equipment to support disposition activities; stabilize, solidify TRU liquids, visual examination (VE) and package solidified waste and debris; characterize and ship approximately 40 RH TRU drums to WIPP and approximately 10 CH TRU drums for centralization/certification at INL for final disposal to WIPP.
  - Building 212 AGHCF: gather data in support of AK determination; conduct process equipment repairs and improvements; conduct size reduction activities; VE and package, characterize and ship approximately 180 RH TRU drums to WIPP and approximately 30 CH TRU drums for centralization/certification at INL for final disposal to WIPP.
  - Building 306: Acquire and install process equipment improvements; gather data in support of Process Knowledge data packages; VE and repackage and characterize approximately 105 CH TRU drums for centralization/certification at INL for final disposal to WIPP.
  - Building 200 M Wing: Gather data in support of Process Knowledge data packages; VE and packages approximately 5 CH TRU drums centralization/certification at INL for final disposal to WIPP.

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### Work Scope Changes

Building 310 demolition initially was planned to include all below-grade foundations and footers, which would allow this area to be converted to green fields and release valuable real estate for future use. Characterization of the building and adjacent soils, completed in January 2010, revealed higher and more extensive radiological contamination of soils than had been anticipated. Preliminary estimates indicated that the costs of removing and disposing, as low-level radioactive waste, soils associated with removal of the building foundations and footers could exceed available funding. As a result, the project was rescoped to a project end state which consists of demolition of the decontaminated building to two feet below grade and offsite disposal of resulting debris and minor incidental soils. This approach was considered to result in the maximum possible number of jobs created or maintained, while staying within current funding levels. If DOE contingency and contractor management reserve funds under EM Recovery Act Project 2002000 remain when the other planned Argonne subprojects are nearing completion, some of these funds may be allocated to performing a “nature and extent” characterization to bound the limits of the soil contamination.

Some of the materials in the AGHCF, which originally had been planned to be removed and sent to other DOE facilities, were found to be acceptable for permanent disposal as transuranic wastes at WIPP. As a result, there has been a decrease in the amount of planned materials (and associated costs) associated with the AGHCF materials and waste disposition subproject, and an increase in the volume of transuranic wastes going to WIPP under the “next phase” TRU campaign. The overall volume of RH TRU wastes planned to go to WIPP from Argonne under the EM Recovery Act has increased to approximately 220 30-gallon drums (compared to initial estimates of 160 drums).

### Buy-Back Scope

Based on the potential availability of funds from unused management reserve and contingency funds and from cost efficiencies in executing the planned projects, additional candidate projects have been identified should funding become available. The criteria for including these activities in this Project Operating Plan are as follow:

- Work previously has been identified by EM as acceptable for transfer from SC (subject to funding) or potentially acceptable based on chemical or radioactive contamination, or waste and material type;
- Work can be initiated within a month of release of management reserve, and completed prior to the end of FY 2012;
- Work will result in a temporary creation of jobs; and
- Work performed will not create the need for immediate follow-on activities.

Initiation would be coordinated in advance with EM. Potential activities to be accomplished, if there are remaining funds, and their benefits, are as follow:

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- Building 310 “nature and extent” survey plan and characterization to bound the extent of the subsequent soil cleanup;
- Intense Pulsed Neutron Source (IPNS) NEPA characterization, project planning, baseline development, RH-Beryllium waste removal;
- Building 200 MA/MB Wing Hot Cell Nuclear Facility preliminary D&D planning, 2<sup>nd</sup> floor initial rad survey of K-Cells floors and walls and completion of non-destructive hot spot removal;
- Building 212 AGHCF – complete preliminary D&D project planning ( utility reroute study, decontamination and deactivation planning to achieve downgrade and initial non-destructive decontamination activities;
- Building 310 soil cleanup;
- Building 205 – demolition of large Plutonium-Americium contaminated glovebox (initial D&D activity);
- Building 306 – demolition of Legacy Evaporator Tank Farm System (initial D&D activity).

The Argonne EM Recovery Act work ties to the following DOE and EM Strategic Goals and Themes:

DOE Strategic Goal 4 – Environmental Responsibility – protecting the environment by providing a responsible resolution to the environmental legacy of nuclear weapons production.

DOE Strategic Goal 5 – Management and Excellence – Enabling the Department’s mission through sound management and business practices.

EM Goals – To safely disposition large volumes of nuclear waste; safeguard materials that could be used in nuclear weapons; deactivate and decommission thousands of contaminated facilities no longer needed by the Department to carry on its current mission; transport and dispose of transuranic and low-level wastes in a safe and cost efficient manner to reduce risk; and remediate soil contaminated with radioactive constituents. EM is fulfilling its commitments to reduce overall risk and complete cleanup across all sites for generations to come.

### **Public Benefits:**

The Argonne National Laboratory facilities identified for this Recovery Act project contain hazardous or radiological material. Accelerating the removal and proper disposal reduces risk of releases of this material to the environment and reduces the cost of facility monitoring and maintenance.

### **Recovery Act Project Impacts:**

Removal of hazardous and radiological material from the Argonne Nuclear Facilities will reduce potential safety risks associated with the facilities, ready the facilities for decontamination and ultimate demolition, support life-cycle costs reduction in future savings from surveillance, monitoring, and maintenance. These projects can be implemented using current technology, and expectations are that start of physical work can be accelerated creating new jobs for subcontractors and preserving current Argonne positions. The activities planned at Argonne

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National Laboratory also support the DOE EM environmental footprint reduction goals (94,177 sq feet from D&D of Buildings 310 and 330 alone), reduce the potential for future environmental risks, and makes available free space for future beneficial use in accordance with Argonne's continued scientific research and development mission.

### **II. COST & SCHEDULE**

#### **Budget**

Table 1: Budget Implementation Monthly & Yearly Obligations

The Project funding is subject to re-apportionment and will be finalized by 9/30/2010; the Project Operating Plan will then be reissued with an obligations table.

Table 2: Budget Implementation Monthly & Yearly Expenditures

The Project funding is subject to re-apportionment and will be finalized by 9/30/2010; the Project Operating Plan will then be reissued with a costs table.

**NOTE: Funding was received on May 14, 2009 and obligated on May 23, 2009. Expenditures began in June 2009.**

**NOTES:** Argonne is providing revised estimated cost and schedule numbers to reflect current baseline numbers for the Building 330 Decontamination and Demolition Project, AGHCF waste and materials disposition campaign, and "Next Phase" TRU campaign, as well as planning numbers for the Building 310 Decontamination and Demolition Project. The Building 310 Decontamination and Demolition Project will develop to the CD 2/3 stage during 3<sup>rd</sup> quarter of FY 2010. Monthly expenditure plans and milestones represent our most current thinking, incorporate the planned \$19.5M reduction in EM Recovery Act funds, and correspond with the revised milestone table. Funding was received on May 14 and obligated on the contract May 23 so expenditures began in June 2009.

The revised estimates include cost avoidances on the Building 330 project, as well as a significant reduction in the amount of material from the Alpha Gamma Hot Cell Facility (AGHCF) to be returned to the Idaho National Laboratory (INL). Approximately 40% of the material previously planned to be returned to INL has been determined to be acceptable for direct disposal at the Waste Isolation Pilot Plant (WIPP). As a result of the cost avoidances on the Building 330 project, and the revised disposition pathway for a significant portion of the AGHCF materials, the site believes that the planned Recovery Act endstates may be achieved despite the planned \$19.5M reduction in EM Recovery Act funding.

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### Funds Returned and Offsetting Collections

*No returned funds or offsetting collections are expected.*

Table 3: Funds Returned and Offsetting Collections  
Not applicable

### Indirect Costs

An estimate for the percent of project costs that will be indirect (see definitions below) is 14.5%, compared to the program effective rate for FY 2008 and 2009 of 31.5%. Because larger subcontracts have discounted indirect rates applied, the actual average indirect rates for Recovery Act work will depend on the size of the contracts awarded. These indirect rates should be adjusted to account for the material infusion of funds provide in the Recovery Act.

Future reporting requirements include monthly reports on actual indirect cost rate.

### Definitions

**DIRECT:** Represents cost categories that are directly tied to a specific project or end item.

**INDIRECT:** Represents costs allocable to projects that are not direct costs. Indirect costs should only be reported by site and facility operating contractors (i.e., Management & Operating contractors)]

### Changes to Baseline Budget

This Argonne project involves new scope under EM under the Recovery Act. Planned work is not expected to result in costs associated with Recovery Act activities and commitments beyond what is directly covered with Recovery Act funds. Follow-on work such as D&D of the AGHCF and Building 212 is expected to be planned and budgeted in accordance with EM's normal budget development process. Any addition of Federal employees required for oversight or implementation of Recovery Act work were expected to be term appointments or matrix support.

### **Table 4: Changes to Baseline Budgets (\$M)**

Information on Changes to Baseline Budgets Under the Recovery Act is not applicable to this project.

**NOTES:** Argonne is a small EM site that has proposed new start initiatives that will utilize Recovery Act funding to propel forward the reduction of nuclear footprint by removing waste and materials from the site and eliminating unneeded facilities. The cost estimates, milestones and performance measures are based on the \$19.5M planned reduction in EM Recovery Act funding, on approved baselines for the Building 330 excess facility project and the two waste and material disposition campaigns, and on best information available at this stage of planning for the Building 310 excess facility project. It is expected that appropriate changes will be identified

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as detailed estimates and resource-loaded schedules are developed for the Building 310 project following subcontract award in June 2010.

### Milestones

Office: EM  
 Recovery Project Name: Argonne National Laboratory - Building 310 and Building 330 D&D projects and AGHCF Material Removal campaign (nondefense)

### Major Milestones

For Grants, Contracts, and Hiring Actions associated with implementing Recovery Act, provide dates for the major milestones. For NEPA reviews, provide the type of review expected and the associated major milestones with dates. Include dollar amounts where appropriate. Add duplicate lines as needed. Provide comments as needed to highlight and clarify milestones.

	Grants	DATE	Amount (\$M)	Comments
1	Post synopsis on grants.gov/recovery.gov	N/A		
2	Post full announcement on grants.gov	N/A		
3	Close Date for proposals	N/A		
4	Complete proposal reviews	N/A		
5	Select Grant(s) for Award(s)	N/A		
6	Award Grant(s)	N/A		
7	Initial Funds Distribution	N/A		
8	Intermediate Funds Distribution(s) (i.e. expected draw schedule)	N/A		
9	Final Funds Distribution	N/A		

	Use of Existing Grants	DATE	Amount (\$M)	Comments
1	Request a Revised Budget/Terms and Conditions	N/A		
2	Negotiate Revised Budget/Terms and Conditions	N/A		
3	Award Revised Budget/Terms and Conditions	N/A		
4	Initial Recovery Act Funds Distribution	N/A		
5	Intermediate Recovery Act Funds Distribution(s)	N/A		
6	Final Recovery Act Funds Distribution	N/A		

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	Use of Existing Contracts	DATE	Amount (\$M)	Comments
1	Request a Revised Proposal/Contract	3/23/09		
2	Negotiate Revised Proposal/Contract	3/27/09		
3	Award Modification after Signature	3/30/09		
4	Initial Recovery Act Funds Distribution	5/14/09	35	Initial funding allocation to Field
5	Intermediate Recovery Act Funds Distribution(s)	9/02/09	44	Second funding allocation to Field
6	Final Recovery Act Funds Distribution	N/A	N/A	

	Contracts	DATE	Amount (\$M)	Comments
1	Post synopsis at FBO/Recovery.gov	N/A		
2	Post RFP on DOE website	N/A		
3	Close Date for RFP Submissions	N/A		
4	Complete RFP Evaluations (technical and cost/price)	N/A		
5	Select Source(s)	N/A		
6	Award instrument after Signature	N/A		
7	Initial Funds Distribution	N/A		
8	Intermediate Funds Distribution(s) (i.e. monthly disbursements)	N/A		
9	Final Funds Distribution	N/A		
	HR	DATE		Comments
1	Identify hiring requirement	3/3/09		Assumes matrix or term additional Federal staff.
2	Develop position description and crediting plan	3/27/09		No Federal staff or additional subcontracted support obtained.
3	Announce position	N/A		
4	Close announcement	N/A		
5	Issue Selection Certificates	N/A		
6	Complete interviews	N/A		
7	Select new hire(s)	N/A		
8	Negotiate employee start date	N/A		
9	New employee(s) begins work	N/A		

Weekly/Monthly Milestones				
Provide weekly milestones through May 8th and Monthly milestones thereafter through Sept. 2011 (add lines as necessary)		DATE	Amount (\$M)	Comments
1	Milestones for Buildings 310 and 330 D&D and AGHCF fuel disposition Argonne initial Recovery Act allotment received for nondefense			
		5/14/09	79	Incorporates 1.5% reduction per HQ direction

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2	Recovery Act scope			
			50.9	Building 330, 310, AGHCF work under reduced funding
	Federal hiring requirements identified for this Recovery Act scope.	3/3/09		Assumes matrix or term additional Federal staff; selected staff may support more than one Argonne Recovery Act proposal. No additional staff obtained.
	Argonne requested to submit revised work authorization plans for Building 310 and Building 330 D&D projects and for AGHCF Material Removal campaign. (requested)	3/9/09		To expedite work planning and prerequisites, this work may be funded using surplus base program funding pending authorization for use of Recovery Act funds. Funds will be tracked separately if this is the case.
	Argonne Site Office submits drafting 413.3A tailoring strategies for Building 310 and Building 330 projects and AGHCF Material Removal campaign to EM CBC/EM HQ. (submitted)	3/9/09		To expedite work planning and prerequisites, this work may be funded using surplus base program funding pending authorization for use of Recovery Act funds. Funds will be tracked separately if this is the case.
	Initial determination on CX or EA for Building 310 and Building 330 D&D projects (determination made)	3/13/09		To expedite work planning and prerequisites, this work may be funded using surplus base program funding pending authorization for use of Recovery Act funds. Funds will be tracked separately if this is the case.
	Argonne revised Building 310 and Building 330 D&D projects and AGHCF Material Removal campaign work authorization plans received and negotiated (change in guidance – “120 day” workplans requested instead)	3/19/09		To expedite work planning and prerequisites, this work may be funded using surplus base program funding pending authorization for use of Recovery Act funds. Funds will be tracked separately if this is the case.
7	Argonne lets task order(s) for Building 310 and Building 330 EAs (task orders let)	3/20/09		To expedite work planning and prerequisites, this work may be funded using surplus base program funding pending authorization for use of Recovery Act funds. Funds will be tracked separately if this is the case.

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8	Asbestos removal permits for Argonne Buildings 330 submitted to State (Work was contracted out per Recovery Act “prevailing wage” requirement; permits requests submitted by asbestos contractor for Building 330 on August 12, 2009).	3/20/09		To expedite work planning and prerequisites, this work may be funded using surplus base program funding pending authorization for use of Recovery Act funds. Funds will be tracked separately if this is the case.
9	GSA/HUD screenings initiated for Argonne Building 310 and 330 (screenings were initiated)	3/20/09		To expedite work planning and prerequisites, this work may be funded using surplus base program funding pending authorization for use of Recovery Act funds. Funds will be tracked separately if this is the case.
10	Argonne work authorization formally approved for FY2009 Recovery Act scope, Building 310 and 330 projects and AGHCF Material Removal campaign. (work authorizations approved for initial tasks using base [not ARRA] funding)	3/25/09		To expedite work planning and prerequisites, this work may be funded using surplus base program funding pending authorization for use of Recovery Act funds. Funds will be tracked separately if this is the case.
11	Draft Project Operating Plans submitted for Building 310 and Building 330 D&D projects and AGHCF Material Removal campaign. (draft POP submitted)	3/25/09		To expedite work planning and prerequisites, this work may be funded using surplus base program funding pending authorization for use of Recovery Act funds. Funds will be tracked separately if this is the case.
12	Develop position description and crediting plan for Federal hires supporting ANL Recovery Act scope.	4/1/09 (N/A)		No Federal hires obtained
	Argonne initiates Building 310 characterization and very limited characterization for Building 330	4/1/09 (N/A)		EM Recovery Act funding received 5/14/09. See subsequent milestones for Building 330 waste characterization and Building 310 characterization.
13	EM approval of 413.3A tailoring strategies for Argonne nondefense Recovery Act projects and AGHCF cleanout campaign and appoint FPDs as appropriate. (no approval received but EM strategy was sent to the Field in June)	4/8/09		
14	Announce position (matrix or term) for Argonne AGHCF Material Removal Project	4/13/09		No additional staff obtained.

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15	Argonne initiates preparation of project baselines for Building 310 and Building 330 projects and detailed scope and schedule preparation for AGHCF cleanout campaign. (funding not received to begin this until 5-14-09)	4/13/09		Project baseline development began 6/01/09 following receipt of initial funding.
16	FPDs submit Acquisition Strategy/other initial 413.3A documentation for D&D projects, and campaign detailed scope and schedule documentation for AGHCF cleanout, in accordance with approved tailoring strategy (in progress with baselines)	4/20/09		Building 330 documents were submitted in parallel with baseline development in July/September 2009. Building 310 documents also will be submitted as baseline is developed.
17	Argonne and Argonne Site Office review of draft EAs for Building 310 and Building 330 (B 310 EA deferred until characterization is done. Draft B 330 EA reviewed)	5/29/09		Building 330 FONSI issued 8/11/09. Building 310 FONSI issued 4/09/10.
18	Argonne issues contract(s) for asbestos removals in Buildings 310 and 330 and Building 330 hazmat removal (contract for B330 to be issued in July 09. B 310 will be empty 10-1-09).	8/05/09		Building 330 asbestos removal contract issued 8/05/09. Building 310 abatement planned as part of decontamination and demolition contract.
19	Argonne Site Office reviews draft baselines for Building 310 and Building 330 D&D projects and detailed scope and schedule documentation for AGHCF Material Removal campaign (Delay to 8-15-09 due to delay in receipt of funding)	8/14/09		
20	Argonne initiates decontamination services procurement for Building 310 (deferred until characterization is done and EA completed)	<del>M-09</del> M-10		Single contract will be procured for Building 310 abatement, decontamination, demolition and waste management. Request for Bids, as a small business set-aside, was issued 2/19/2010. Contract award is planned for 6/18/2010, following CD 2/3 approval.
21	Argonne receives asbestos permit approvals and initiates asbestos removals in Building 330	8/12/09		Asbestos removal completed 11/12/09
22	GSA/HUD screening completed for Argonne Buildings 310 and 330	6/13/09		Approval to demolish received 8/10/09
23	Draft EAs completed for Argonne Building 310 and 330 (B330 pre-approval EA sent to IEPA on July 17;	7/17/09		Building 330 FONSI issued 8/11/09. Building 310 EA postponed under characterization complete. Building 310 FONSI issued 4/09/10.
24	Complete Building 330 project	8/14/09		CD 2/3 approval 9/28/09

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	baseline planning			
25	212 AGHCF Initiate AK/PK Review and detailed waste campaign planning	8/14/09		
26	FONSI for Argonne Building 330 D&D project; IPR and CD 2/3 approval (IPR scheduled for 9-8-09)	8/11/09		Building 330 FONSI issued 8/11/09. CD 2/3 approval 9/28/09.
27	Argonne procures demolition engineering support for Building 330	8/17/09		
28	Argonne Building 310 decontamination procurement completed (one contract will be procured for abatement, decontamination, demolition and waste management in May/June 2010)	<del>A-09</del> J-10		Contract award expected May/June 2010; now planned for 6/18/2010 following CD 2/3 approval.
29	Argonne submits AGHCF BIO and Deactivation Plan to DOE	8/14/09		Joint milestone with Nuclear Footprint Reduction effort
30	Argonne Building 310 decontamination readiness review (planning indicates June/July 2010 review)	<del>S-09</del> <del>J-10</del> S-10		Readiness review expected June/July 2010 (now expected Aug/Sept 2010)
31	Argonne Building 310 decontamination work started (start of work planned August 2010)	<del>O-09</del> <del>A-10</del> S-10		Start of work planned August 2010 (baseline under development)
32	Award procurement for NAC-LWT Shipping Cask (AGHCF shipping)	10/09/09		
33	AGHCF Process 1st Group of Candidate Material Into Shipping Tubes (10 Tubes Loaded) INL EBR-II Fuel & Other (first fuel element tube packaged 11/2/09)	<del>O-09</del> 11/02/09		Completion of all material element tubes planned during FY 2010 – see subsequent milestones
34	Argonne Building 330 demolition engineering design complete	<del>N-09</del> 10/15/09		Demolition engineering report complete 10/15/09
35	Applicant request 25% SARP Revision meeting for NAC-LWT cask (AGHCF shipping)	11/03/09		
36	Argonne sends RFP for Building 330 demolition to prospective bidders	<del>D-09</del> 8/21/09		RFP was issued 8/21/09 and contract award made 10/21/09
37	Procurement Established and Fund Transfer to Candidate Off-site Receipt Facility (INL)	FY 2009		MOA between ANL and INL regarding Transfer of Argonne fuel Inventory to Idaho dated January 24, 2007. IEWO processed for funds transfer in FY 2009.
38	Begin AGHCF fuel investigation waste (FEW) inventory and packaging effort	2/08/10		
39	Argonne Building 330 demolition contractor procured	10/23/09		Award was made 5 months earlier than initially planned, in line

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			with approved baseline
40	Submit NAC-LWT Initial SARP Revision and Checklist to DOE	2/26/10	
41	Execute 1st Shipment of material from AGHCF to Off-Site Candidate Facility (INL)	9/13/10	
42	Package 50% of Material Element Tubes destined for INL (50% complete)	4/30/2010	
43	Argonne Building 310 demolition contractor procured	<del>A-10</del> J-10	Contract award expected May/June 2010 (now planned for 6/18/2010 following CD 2/3 approval).
44	Argonne Building 310 decontamination completed	<del>M-10</del> F-11	
45	Argonne Building 330 demolition readiness review	12/23/09	Readiness evaluation completed 12/23/09 in accordance with approved baseline
46	Argonne Building 310 demolition readiness review	<del>F-11</del> A-11	Readiness evaluation expected 4/11 in accordance with baseline submitted for Independent Project Review
47	Argonne Building 330 decontamination and utility cut-offs completed	3/16/10	Milestone completed 3/16/10 as scheduled
48	Argonne Building 330 demolition started	3/17/10	Building demolition began 4/01/10
49	Argonne Building 310 demolition started	<del>J-10</del> <del>M-11</del> A-11	Demolition expected to start 4/20/11.
50	Submit final SARP revision page changes to DOE (AGHCF)	6/03/10	
51	Argonne Building 330 Above Grade demolition completed	6/29/10	
52	Receive revised Certificate of Compliance for NAC-LWT cask (AGHCF)	7/30/10	
53	Declare readiness to ship material to INL (AGHCF)	8/27/10	
54	Execute 2 <sup>nd</sup> shipment of material off-site to INL	10/04-10	
55	Complete Packaging of 100% of AGHCF Element Tubes destined for INL	8/31/10	
56	Argonne Building 330 Below Grade demolition completed	12/09/10	
57	Complete AGHCF Fuel Examination Waste Inventory and Packaging Effort	3/08/11	

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58	All waste disposition completed for Argonne Building 330	3/16/11		
59	Install Swarf conditioning process (AGHCF)	05/24/11		
60	All Decon and Demolition complete, Argonne Building 330	6/30/11		
61	Argonne Building 330 project closeout package submitted to Argonne Site Office	7/29/11		
62	Swarf conditioning complete (AGHCF)	8/11/11		
63	Projects complete, Argonne Buildings 310 and 330	9/21/11		Building 310 baseline shows 9/30/11 completion.

	Milestones for TRU waste disposition			
	Argonne initial Recovery Act allotment received for Next Phase TRU proposal. (initial funds received 5-14-09)	<del>3/2/09</del> 5/14/09	28.1	Reflects greater proportion of materials, primarily from AGHCF, found eligible for WIPP disposal
	2	Federal hiring requirements identified for Argonne Next Phase TRU project.	3/3/09	Assumes matrix or term additional Federal staff; selected staff may support more than one Argonne Recovery Act proposal. No additional staff obtained.
	3	Argonne requested to submit revised work authorization plan for Next Phase TRU Recovery Act scope.	3/6/09	To expedite work planning and prerequisites, this work may be funded using surplus base program funding pending authorization for use of Recovery Act funds. Funds will be tracked separately if this is the case.
	4	Argonne Site Office submits drafting 413.3A tailoring strategy for Next Phase TRU project to CBC/EM. (submitted)	3/9/09	To expedite work planning and prerequisites, this work may be funded using surplus base program funding pending authorization for use of Recovery Act funds. Funds will be tracked separately if this is the case.
	Initial determination on CX SA for Argonne Next Phase TRU NEPA.	3/13/09		Assumption is that short Supplement Analysis (SA) will be required, as with previous TRU activities, to complete entire scope of work. From review of previous SA waste volumes, current NEPA

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			adequate for work start. No additional SA was required.
5	Argonne revised Next Phase TRU work authorization plan received and negotiated ("120 day" workplans requested)	3/13/09	To expedite work planning and prerequisites, this work may be funded using surplus base program funding pending authorization for use of Recovery Act funds. Funds will be tracked separately if this is the case.
6	Argonne work authorization formally approved for FY2009 Next Phase TRU Recovery Act scope. (initial planning only, using base[not ARRA] funding)	3/17/09	To expedite work planning and prerequisites, this work may be funded using surplus base program funding pending authorization for use of Recovery Act funds. Funds will be tracked separately if this is the case.
7	<del>Argonne lets task order for Next Phase TRU SA (or EA).</del>	<del>3/20/09</del>	While not required for start of work per preliminary review, this review will be done to address scope completion. Task not required.
8	Draft Project Operating Plan for Argonne Next Phase TRU submitted to EM (submitted)	3/25/09	To expedite work planning and prerequisites, this work may be funded using surplus base program funding pending authorization for use of Recovery Act funds. Funds will be tracked separately if this is the case.
9	Develop position description and crediting plan for Federal hires supporting Argonne Next Phase TRU project	4/1/09	No additional staffing obtained.
10	EM approval of 413.3A tailoring strategy for Argonne Next Phase TRU clean-out campaign and appoints a Director (no approval received)	4/8/09	
11	Announce position (matrix or term) for Argonne Next Phase TRU project	4/13/09	No additional staffing obtained.
12	Argonne initiates detailed scope and schedule preparation (initial funding received 5-14-09)	4/13/09	Project baseline development began 6/01/09 following receipt

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			of initial funding.
13	FPD submits documentation in accordance with approved tailoring strategy (tailoring strategy never formally approved; documentation will be in accordance with EM project management strategy)	4/20/09	Assumption is no formal CD approval process per previous waste campaigns, but tailoring strategy will discuss application of 413.3A principles as best management practice.
14	<del>Argonne and Argonne Site Office review of draft SA</del>	4/27/09	Note: not required for start of work per preliminary review. Task not required.
15	Argonne Site Office reviews draft detailed scope and schedule documentation for Next Phase TRU. (delayed by late receipt of funding)	8/14/09	
16	<del>Draft SA (or EA) completed for Argonne Next Phase TRU project.</del>	J-09	Note: not required for start of work per preliminary review. Task not required.
17	<del>FONSI for Argonne Next Phase TRU project; approval of campaign cost and schedule</del>	J-09	Note: not required for start of work per preliminary review. We are assuming no formal CD 2/3 for a waste cleanout campaign. Task not required
18	<del>205 K-Wing CBFO AK Design Complete (in progress July 2009)</del>	6/30/09	
19	<del>200 M-Wing CBFO AK Design</del>	6/30/09	
20	<del>AGHCF/CBFO AK Design Improvements</del>	6/30/09	
21	AGHCF Process 1st RH-TRU Production Run (transfer to 331)	12/04/09	
	Reduce 205 K-Wing to a <Hazard Category 2 facility	12/31/09	Shared milestone with Nuclear Footprint Reduction task
	Installation complete of AGHCF Robot	1/22/10	
22	205 K-Wing RH-TRU Liquids Processing Complete	3/31/10	
23	205 K-Wing Process 1st RH-TRU Production Run	12/23/09	
24	First CH Production Run from 306/331 Completed	2/12/10	
25	1st RH Shipment Campaign	10/16/09	
27	1st RH TRU Production Run ready for shipment	4/09/10	
28	Reduce 205 K-Wing to a < Hazard Category 3 facility	6/30/10	Shared milestone with Nuclear Footprint Reduction task
29	Initiate Building 306 CH TRU > Hazard Category 3 activities	11/18/10	
30	50% of RH TRU ready for shipment	1/04/11	
31	AGHCF Process 5th RH-TRU	8/10/10	

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	Production Run (transfer to 331)			
32	200 M-Wing Storage Pit inspection	3/24/11		
33	50% of CH TRU Ready for Shipment to INL	4/18/11		
34	Complete 200 MA-Wing TRU Pit De-Inventory	5/23/11		
35	AGHCF Process Last RH-TRU Production Run (transfer to 331)	8/12/11		
36	100% of RH TRU ready for shipment	9/8/11		
37	100% of CH TRU ready for shipment	9/30/11		

*Recovery Act projects that are Capital Asset Projects, should report the additional planned major milestones in Table 5.*

**NEPA Compliance:** A portion of the scope of work is addressed in existing NEPA documents.

- Alpha Gamma Hot Cell Facility: Categorical exclusion determination (10/01/08)
- TRU Waste Disposition: Upgrade of Storage Facilities EA (DOE/EA-1073; Finding of No Significant Impact, 8/24/95; also DOE/EA 1073-SA01 and DOE/EA-1073-SA02)
- TRU Waste Disposition: Waste Management PEIS (DOE/EIS-0200; 62 FR 31098, 6/06/97) and Record of Decision (ROD) (63 FR 3629, 1/23/98 and subsequent RODs)
- TRU Waste Disposition: WIPP SEIS (DOE/EIS-0026-S2; 62 FR 52998, 10/10/97) and ROD (63/FR 3623, 1/23/98 and Amended RODs 69 FR 39456, 6/30/04; and 67 FR 69512, 11/18/02)

The remaining scope of work, involving D&D of Buildings 310 and 330, is being addressed in ongoing environmental assessments (DOE/EA-1670 and DOE/EA-1659, respectively). The Building 330 Finding of No Significant Impact was issued on August 11, 2009. Preparation of the Building 310 environmental assessment resumed in January 2010 following completion of the building characterization; the Finding of No Significant Impact was issued on April 9, 2010. The Chicago Office NEPA Compliance Officers will monitor implementation and, as necessary, determine whether additional NEPA review is required.

In executing this Recovery Act project, DOE-ASO will implement the project management requirements of DOE O 413.3A, *Program and Project Management for the Acquisition of Capital Assets*. DOE-ASO will use the flexibility afforded by DOE O 413.3A and tailor its requirements to this project. This tailored approach does not mean deviation and will maintain the utility and value of clear project definition, configuration management and change control, and sound project controls, including earned value management.

- DOE-ASO intends to use existing EM site systems and reporting requirements through modifications to the contract that will fund this Recovery Act Project.
- Continue using approved programs and procedures currently in place with ANL contractors and their subs, applying project management principles to Recovery Act Project execution, including reviewing and validating EM project cost and schedule

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baselines consistent with DOE Order 413.3 and identifying project risks and strategies for managing them.

- Continue use of industry standard Earned Value Management System (EVMS) to compare actual project scope, cost, and schedule performance against planned performance as depicted in the baseline.
- Continue monitoring of the contractors' EVMS reports to ensure the Recovery Act Project is on track and, if not or if trends are in a negative direction, to develop and implement corrective actions.
- Hold monthly management reviews to provide updates on the Recovery Act Project to EM's senior-most executives.
- Secure support service contractors to provide limited augmentation of federal procurement, budget and finance, project controls, and technical oversight capabilities for the Recovery Act Project.
- Assign appropriately qualified staff to the Recovery Act Project to provide technical and programmatic oversight of the contractors performing the work and be the day-to-day governmental interface and manager for the project.
- Use an Integrated Project Team (IPT) of Federal and contractor staff with project knowledge and subject matter expertise essential to the successful planning and execution of the project – including safety, risk management, engineering, quality assurance, contracts administration, and project controls.
- Develop detailed risk management plans for the Recovery Act Project to identify and mitigate risks, and assign roles and responsibilities for managing the risks.

**Table 5: Delivery Schedule for Capital Asset Projects N/A (until OECM and EM agree on 413.3A graded approach)**

Program/OECM Milestone	Delivery (End) Date	Comments
Develop capital asset projects Integrated Project List	List to be formally approved mid July 2009	Two projects included in Recovery Act funded projects are Capital Asset projects (Building 310 & Building 330 demolition.
Develop Parametric Performance Baseline (Individual Projects)	September 2009 through May 2010	Performance Baselines will be developed as part of the Recovery Act project.
If < \$100 M Perform IPR, > \$100 M Perform EIR (Individual Projects)	September 2009	An IPR will be conducted for each Capital Asset subproject. An IPR was conducted September 8-10, 2009 with a follow-up review on May 4-6, 2010
Approve Performance Baseline	September 2009	The Building 330 demolition project baseline was approved

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		September 28, 2009. The Building 310 decontamination and demolition baseline was reviewed during the IPR follow-up review of May 4-6, 2010 and approved June 14, 2010.
Approve Start of Construction	October 2009	
Approve Project Completion	September 2011	

***REMINDER:*** All data entered into the SharePoint Recovery Data Collection site will be final at COB April 6. Programs should ensure all appropriate concurrences are obtained and that all project level data submitted electronically via the Recovery Data Collection site is comprehensive, accurate, and up to date.

**NOTES:** Argonne is providing these budget and schedule numbers to reflect current baseline numbers for the Building 330 Decontamination and Demolition Project, AGHCF waste and materials disposition campaign, and “Next Phase” TRU campaign, as well as planning numbers for the Building 310 Decontamination and Demolition Project. The Building 310 Decontamination and Demolition Project will develop to the CD 2/3 stage during 3<sup>rd</sup> quarter of FY 2010. This monthly expenditure plan represents our most current thinking, incorporates the planned \$19.5M reduction in EM Recovery Act funds, and corresponds with the revised milestone table. Funding was received on May 14 and obligated on the contract May 23 so expenditures began in June 2009.

### **III. PERFORMANCE**

#### **Performance Measures**

The period of performance for this Recovery Act work begins April 2009 through September 30, 2011. The project’s performance targets and associated interim milestones documented in Table 6 however, denote planned accomplishments through September 30, 2010; consistent with the DOE routine performance reporting and the first Milestone for Recovery Funding.

**Table 6: Project Performance Targets**

Recovery Act Project Identification Code	2002000
Linkage To S-1 Priorities	National Security and Legacy Economic Prosperity (creation of new jobs)
Linkage to Current Program Goal (if applicable)	Strategic Goal 4: Environmental Responsibility – protecting the environment by providing a responsible resolution to the environmental legacy of nuclear weapons production Managing the Legacy –

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Two-Year Outcome-Oriented Performance Measure	EA for B330 expected to be complete in August 2009. EA for B310 to resume in January 2010 when characterization data is available and expected to be complete in April 2010. Complete decontamination of Building 310 and initiate demolition of Building 330. Initiate disposition of RH TRU waste. Disposition a significant volume of AGHCF wastes
First Year Performance Target (FY 2009)	Initiate and complete baselining activities for projects and establish milestones for treatment of specific wastes/volumes
Q3 - Project-Level Quarterly Performance Milestone(s)	Initiate Building 330 project baseline planning as well as detailed planning for the AGHCF and “Next Phase TRU” operational waste and materials disposition campaigns
Q4 - Project-Level Quarterly Performance Milestone(s)	Building 330 asbestos abatement initiated
Second Year Performance Target (FY 2010)	Milestones for off-site shipment of specific wastes/volumes & critical procurement actions & start dates for demolition activities.
Q1 - Project-Level Quarterly Performance Milestone(s)	1st RH TRU Shipment Campaign Completed  Argonne Building 330 demolition procurement awarded.  Award procurement for NAC-LWT Shipping Cask (AGHCF shipping)  Reduce 205 K-Wing to a <Hazard Category 2 facility
Q2 - Project-Level Quarterly Performance Milestone(s)	Argonne Building 330 demolition initiated  1st RH TRU Production Run ready for shipment  Begin AGHCF fuel investigation waste (FEW) inventory and packaging effort
Q3 - Project-Level Quarterly Performance Milestone(s)	Argonne Building 310 decontamination, demolition and waste management contract awarded.

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Q4 - Project-Level Quarterly Performance Milestone(s)	Execute 1st Shipment of material from AGHCF to Off-Site Candidate Facility (INL)
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[NOTE: PMM program goals are being advanced and/or accelerated through Recovery Act funding by utilizing these targets and measures. These metrics explicitly define in a clear, concise manner the point at which Recovery Act funding will potentially improve the overall outcome of the metric. Where practical, also identify impacts to PART performance.]

Argonne is providing these milestones and metrics to reflect current baselines for the Building 330 Decontamination and Demolition Project, AGHCF waste and materials disposition campaign, and “Next Phase” TRU campaign, as well as planning numbers for the Building 310 Decontamination and Demolition Project. The Building 310 Decontamination and Demolition Project will develop to the CD 2/3 stage during 3<sup>rd</sup> quarter of FY 2010. These metrics represent our most current thinking, incorporate the planned \$19.5M reduction in EM Recovery Act funds, and correspond with the revised milestone table. Funding was received on May 14 and obligated on the contract May 23 so expenditures began in June 2009.

### National Strategic Benefits

Information on National Security Benefits Under the Recovery Act is not applicable to this project.

## IV. MANAGEMENT

### Secretarial-level Items

#### Intended Results and Linkage to Secretary’s Priorities

Table 8 depicts the linkages between short term (5 year) qualitative and quantitative benefit estimates and the Secretarial-level Priorities through September 2014 (table under development)

### Collaboration and Coordination

To complete the irradiated fuel disposition goals and the RH and CH Transuranic Waste disposition objective will require support, collaboration and leadership from EM HQ, DOE ASO, Multiple DOE area and field offices and the DOE CBFO.

- Interagency Agreements and memorandum purchase agreements will be utilized to provide for the necessary contract vehicle to provide funding, priority, negotiate scope cost and schedules necessary to achieve off-site disposition of irradiated fuels, and waste.
- A memorandum of agreement was signed between EM and SC (March 23, 2009) regarding the execution of work at SC sites with funds made available to EM through the Recovery Act. Work will be executed utilizing SC Laboratory Management and Operation contractor work processes, project baselines (if available), contract

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requirements, safety management systems, and DOE SC authorization bases and oversight processes. An EM representative will be provided to supplement the SC Site Office staff as EM deems necessary to support this work. These representatives will be integrated into the Site Office project teams, will be responsible for providing liaison between the Site Office and the EM Recovery Act Program Office, and will work through the Site Office's contracting authorities in interactions with the Contractor.

### **Federal Infrastructure Investments**

There are no infrastructure investment project activities associated with this Recovery Act Project.

However, ancillary benefits will be achieved through the elimination of facilities resulting in reduced electrical power consumption and corresponding reduction of greenhouse gas emissions. Reuse/Recycle of excess materials could result in reduced consumption in fossil fuels required to process raw materials.

### **Line Management**

Line Management will schedule and participate in regular management review meetings which will include review of safety, quality, scope, cost, and schedule performance, milestone progress reporting, change control reporting, and risk.

### **Needs from Staff Offices**

#### **1) Human Capital**

Contractor Human Capital will be acquired through the M&O Contractor.

Both new direct non-federal jobs and new indirect non-federal jobs will be created through execution of this project, including potential new or temporary positions at the Argonne National Laboratory and preventing potential elimination of current positions at Argonne National Laboratory.

- The types (title, series and grades) and location of positions (management and oversight) are identified below. In addition, significant numbers of skilled trade workers will be required to implement the proposed work scope.

Table 9: Information on Hiring under the Recovery Act (table under development)

#### **2) Procurement**

All activities are within the scope and will be complete via the existing contract vehicle with UChicago Argonne LCC. Activities will be added to the contract via standard existing procedures (incorporating Recovery Act requirements as identified).

ANL (U Chicago Argonne LLC) will be the prime contractor for the project, though it is expected that the demolition and the majority of the decontamination work will be subcontracted by ANL as fixed price or fixed price incentive. The Argonne contract includes

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goals for utilization of small businesses and those goals will be considered in developing the contracting strategy.

### **Table 10: Procurement Plans**

Information on Procurement Under the Recovery Act is not applicable to this project.